

Application No. 09/708,492

Atty. Dkt. No. 57761.002041

REMARKS

Applicant has reviewed the Office Action ("Action") mailed July 24, 2007. Claims 1-31 and 33-50 are pending in the application. Claims 2 and 22 are amended. No new matter is added by this amendment. Support for the amended claims may be found on pages 7-9 of the application and in the drawings, for example. The claims are amended to set forth further novel features.

Applicant respectfully requests reconsideration of this application in view of the following remarks.

A. The 35 U.S.C. 112 Rejection

In the Office Action, claims 3, 13, 24, 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Office Action asserts that claims 3, 13, 24, 30 recite interrogating computers in an "alternating manner" which is indefinite.

Thereafter, in the Remarks, the Office Action asserts:

1) Applicant's language for interrogating the links in an "alternating manner" is broad and unclear. The examiner cannot ascertain from applicant's specification how the term alternating is described or used. For examiner how is it alternating? from left to right or top to bottom? An alternating manner does not specifically and distinctly show how it is being achieved, or realized. Therefore the rejection remains.

Applicant traverses such rejection and respectfully submits that such claimed feature does satisfy 35 U.S.C. 112. Applicant submits that the metes and bounds of such language is fully clear.

Applicant submits that "broad" language is not the standard for satisfying 35 U.S.C. 112. The Office Action further asserts that the language is unclear. Applicant submits that the term

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"alternating" is fully clear. The fact that the claims do not specify the particulars of the manner of alternating, does not render the claim indefinite. Also, as to Applicant's specification, Applicant notes page 10, lines 16-25, which is one example of the claimed "alternating."

Further, Applicant notes that the claimed "alternating" goes to the nature of the interrogation. Such nature of the claimed invention is fundamentally different than that of Rao.

Withdrawal of the rejection is requested.

C. The 35 U.S.C. 102 Rejection

In the Office Action, claims 1-20, 22-31, and 33-50 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,850,531 by Rao et al. This rejection is respectfully traversed.

Pending Claim 1 recites:

A multiple port unit adapted for coupling one or more computers to multiple peripheral devices over a network, said multiple port unit comprising:
plural network ports, each of said network ports being configured to couple the multiple port unit to a computer over a respective network link;
plural communication serial ports, each of said communication serial ports being configured to couple the multiple port unit to a peripheral device; and
a control unit to interrogate the network links and to communicatively couple said communication serial ports to a selected one of said network ports based on the interrogation of the network links, the control unit further determining whether it is time to interrogate the network links.
(Emphasis added.)

For at least the following reasons, Rao does not anticipate claim 1.

As set forth in Applicant's July 2, 2007 Response, Applicant submits that Rao does not disclose all of the claimed features. Claim 1 recites a control unit to interrogate the network links. The Examiner relies on "fault management features" of Rao as anticipating the claimed control unit. The Rao fault management features are designed to "guard against single points of

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failure within the switch" and to "automatically recover from both equipment faults and external link failures" (Rao, Col. 2, line 40-49).

Rao's "fault tolerant application manager (FTAM)" relies on "[l]ink and port drivers [to] constantly monitor the state of each link and port." (Rao, Col. 9, lines 15-17). Therefore, Rao depends on a hardware driver to report whether the link or port is functioning. Thus, there is no disclosure of the claimed control mechanism that interrogates the network links.

Further, in regard to "the control unit further determining whether it is time to interrogate the network links," the Examiner again cites to Rao even though Rao does not disclose anything regarding determining when to check hardware status, so as to teach the claimed invention, i.e., when to perform the interrogation.

The pending Office Action asserts on page 12 (in the Remarks), that Applicant argues that "The Rao reference does not teach a 'control unit'". Applicant respectfully submits that such is an oversimplification of Applicant's argument.

As to the teachings of Rao vis-à-vis the claimed invention, the Office Action sets forth on page 13 that:

2) The examiner contends the Rao reference anticipates the claimed subject matter. Rao teaches a Chassis Management Module (CMM) that works in conjunction with a fault tolerant application manager (FTAM) to monitor the ports and links of the device for failures so that it can recover from faults and failures (col. 8, lines 53-col. 9, line 26 and col. 2, lines 40-49). These **modules interrogate** the network links for the failures.

Applicant argues there is no disclosure of the claimed control mechanism that interrogates the network links because Rao depends on hardware driver to report whether the link is functioning. The examiner does not see the merit to this argument. Applicant has not defined the claims to exclude hardware or software only means to any part of the controller, nor has applicant explained how Rao does not teach "a control mechanism that **interrogates** the network links."

Rao anticipates the "time-determination" feature as argued in col. 9, lines 1-26 where "each FM sends out **hello messages** at fixed time intervals" in order to detect failures. This timed interval is substantially similar to applicant's specification page 9, lines 4-13 in which a PING, "respectively based on a predetermined interrogation period"

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to monitor the operating status of the links. The control unit would use the same time-determination because it checks at fixed length intervals.

These assertions as set forth in the Office Action are misplaced, and are traversed. The Office Action is clearly relying on the "hello message" of Rao. That is, the Office Action references Rao's teaching that each FM sends out **hello messages** at fixed time intervals (see for example column 9, lines 7-9). Rao goes on to describe:

If a card does not send hello messages, the other cards in the system mark this card as being down. The FTAM 36 in each card then updates all tables impacted by the failure event. The primary SCM 14, upon detecting the card failure, issues a reset request over the management bus to the primary chassis to restart the defective card.

Such teaching of Rao relating to the "hello message" is quite simply not an interrogation. Rather, it is simply a situation in which the cards ascertain whether a particular input is received, i.e., whether the hello message is received.

Indeed, the contrast between Rao and the claimed invention might be characterized as the reactive monitoring of Rao vis-à-vis proactive interrogating of the claimed invention. The Office Action essentially asserts that a periodically internally broadcasted "hello" message by each card in a switch (as described by Rao) is equivalent to the claimed interrogation. Applicant submits that such a read on the applied art and the claims is misplaced, and cannot support the asserted rejections. It follows that as Rao fails to teach the claimed interrogation, Rao fails to teach "determining whether it is time to interrogate the network links".

Accordingly, for at least the reasons discussed above, the Action has not shown that Rao anticipates claim 1 under 35 U.S.C. 102(e) and Applicant respectfully requests that the rejection be withdrawn. Claim 1 is believed to be in condition for allowance and allowance thereof is respectfully requested.

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Independent claims 11, 22, 30, and 40 are allowable for reasons analogous to those given in support of claim 1. The various dependent claims are believed to be in condition for allowance due to their dependence on an allowable claim and allowance thereof is respectfully requested.

D. The 35 U.S.C. 103 Rejection

In the Office Action, claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable by U.S. Patent No. 6,850,531 by Rao et al in view of U.S. Patent No. 6,222,714 by Hoffman et al.

The Office Action asserts that regarding claim 21, the Rao reference teaches a computer architecture as recited in claim 20, with intelligent electronic devices; and that the Rao reference fails to teach controlling protective relays. The Office Action, goes on to assert that however the Hoffman reference teaches wherein said intelligent electronic devices are protective relays (Hoffman: col 7, lines 30-46) in order to provide digital signals to 'control the device (Hoffman: col. 7, lines 30-46). The Office Action asserts that it would have been obvious to one of ordinary skill in the art to create the system as taught by Rao to include the intelligent devices such as protective relays as taught by Hoffman in order to provide digital signals to a controller for controlling a device.

However, Applicant submits that even if such modification of Rao would have been obvious (which is not so admitted by Applicant), such modified Rao would still fail to cure the deficiencies of Rao as discussed above.

Withdrawal of the 35 U.S.C. 103 rejection is respectfully requested.

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E. Conclusion

For at least the reasons outlined above, Applicant respectfully asserts that the application is in condition for allowance. Favorable reconsideration and allowance of the claims are respectfully solicited.

Should the Examiner believe anything further is desirable in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicant's undersigned representative at the telephone number listed below. For any fees due in connection with filing this Response the Commissioner is hereby authorized to charge the undersigned's Deposit Account No. 50-0206.

Respectfully submitted,

HUNTON & WILLIAMS LLP

Date: 1/24/08

By: [Signature]
James R. Miner
Registration No. 40,444

Hunton & Williams LLP
1900 K Street, N.W., Suite 1200
Washington, D.C. 20006-1109
(202) 955-1500 (Telephone)
(202) 778-2201 (Facsimile)